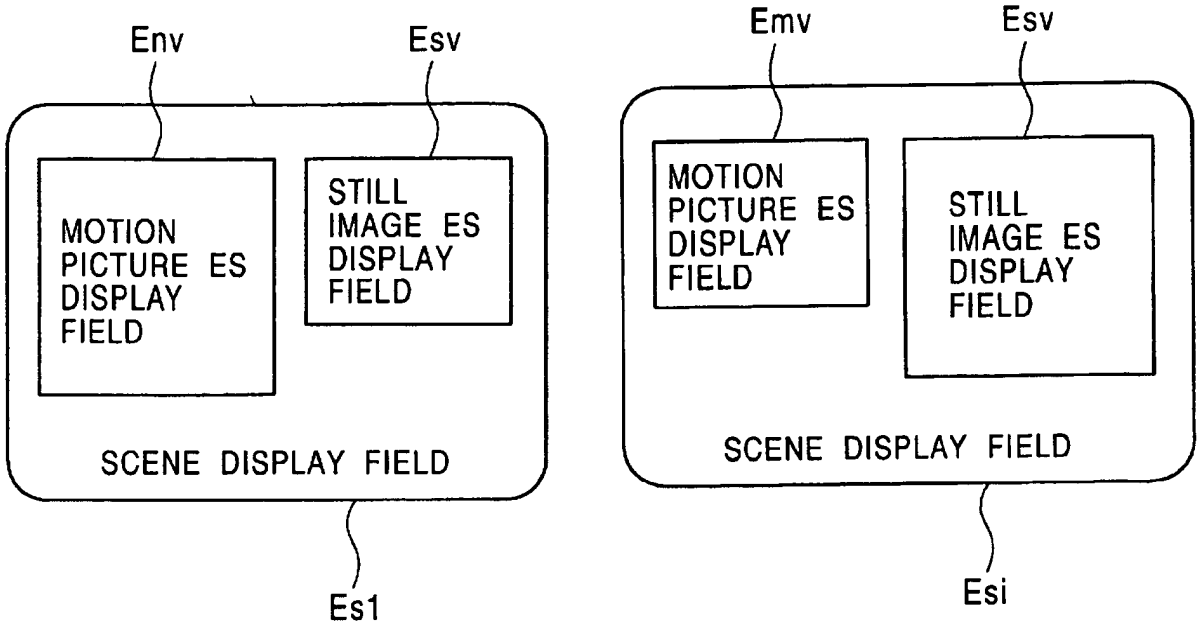
REMARKS

This amendment is in response to the Official Action dated October 16, 2007. Claims 1, 17, 27-30, 32-43, 45-46, 48-52, and 78 have been amended, claims 2-16, 18-26, 31, 44, 47, and 79-94 have been canceled, and claims 95-115 have been added; as such claims 1, 17, 27-30, 32-43, 45-46, 48-52, 78, and 95-115 are now pending in this application. Reconsideration and allowance is requested in view of the claim amendments and the following remarks.

No new matter has been added by this Amendment. The remaining claims have been amended to further clarify the claimed subject matter and to incorporate the subject matter of the cancelled claims.

An Example Embodiment

Fig. 1 illustrates an example embodiment of the present invention which may include a data distribution system 10/20 that constructs and transmits a scene according to an adaptable scene description. The example embodiment monitors a connection between a server 10 and client 20. Based on the transmission line 7 status between the client 20 and server 10, the server 10 may select an elementary stream (ES) which may include, for example, image, audio, or video data that corresponds to the transmission line state. When an ES is displayed in a scene, as illustrated in Fig. 2, the scene dictates the size (e.g., width and height) of the displayed ES. Since a low-resolution image or video will display poor quality when displayed with a disproportionately large width or height, the example embodiment also has the ability to adjust the scene description to properly size the display area of an ES to be proportional to the resolution of the ES to ensure reasonable display quality. Fig. 4 illustrates the modified scene which takes into account the reduced resolution of the transmitted video. To account for the lowered video quality, the video display area is reduced and the still image size is increased to compensate.



(Fig 2 and 4, respectively from Application)

Rejections under 35 U.S.C. § 102

Claims 1, 4-9, 14, 17-22, 27, 30-35, 40, 43-46, 78, and 81-85 have been rejected under 35 U.S.C. § 102(a) as being anticipated by Applicant's Admitted Prior Art ("AAPA").

Claims 4-9, 17-22, 31, 44, 47, and 81-85 have been cancelled. Applicant traverses this rejection as it pertains to the remaining claims.

AAPA discloses a data distribution system that constructs and displays a scene according to a scene description. The AAPA decodes and constructs the same scene irrespective of the quality of the elementary streams (ESs) transmitted by the ES processing unit 103. As a result, the constructed scene may not be optimal for the transmitted ES. For example, if the ES is of a low quality, but the scene description indicates a large viewing area, the resulting displayed ES will appear blurred and distinctly inferior for the display size. Alternatively, if a high-quality ES is transmitted, the constructed display area may lack the proper position and display area to take advantage of the high-quality ([0017]). Furthermore, the distribution of the proper scene description for an unknown

ES quality can create a circular problem, where the proper scene description depends on the proper ES, however, the proper ES cannot be requested without the corresponding scene description and bit-rate sampling ([0018-0021]).

> Amended claim 1 recites: *A data transmission system comprising:*
> *a transmitting apparatus that transmits a scene description; and*
> *a receiving apparatus that constructs a scene according to the scene description;*
> *wherein the transmitting apparatus comprises:*
> *an elementary stream (ES) processing means that transfers at least one ES, which conforms to at least one of a transmission line state and a request issued from the receiving apparatus,*
> *a scene description processing means that transfers and modifies a scene description to conform to a corresponding quality of the at least one ES from the ES processing means by adjusting the properties assigned to the ES within the scene description, and*
> *wherein the transmitting apparatus appends time information to the at least one ES and the scene description; and*
> *wherein the receiving apparatus monitors the time information sent from the transmitting apparatus and detects a delay in transmission using the time information.*

AAPA fails to teach or suggest that "*the transmitting apparatus comprises an elementary stream (ES) processing means that transfers at least one ES, which conforms to at least one of a transmission line state and a request issued from the receiving apparatus, a scene description processing means that transfers and modifies a scene description to conform to a corresponding quality of the at least one ES from the ES processing means by adjusting the properties assigned to the ES within the scene description,*." An important distinction is the difference between the scene description and elementary streams (ESs) making up the scene. The scene description provides a description of the relationships between the various ESs, and is adjusted to account for the various possible qualities of the transmitted ESs.

As set forth above, AAPA suffers from the drawback where the constructed scene may not be optimal for the transmitted ES. In AAPA, the same scene description is used to display every variant of the ES in the same layout. As such, when an ES of poor-quality is transmitted, to account

for a poor line condition, the poor-quality ES is still displayed at full size (as set forth is the one size fits all scene description) resulting in an obviously degraded image. Alternatively, if a high-quality ES is transmitted, the constructed display area may lack the display area to take full advantage of the high-quality ([0017]). Since AAPA is incapable of modifying the scene description to account for the different resolutions or qualities of the transmitted ES, the AAPA fails to teach or suggest "*a scene description processing means that transfers and modifies a scene description to conform to the corresponding quality of the at least one ES by adjusting the properties assigned to the ES within scene description.*"

The Office Action rejected cancelled claim 5, which recites similar subject matter, by citing to paragraphs 5 and 18 of the published application. These paragraphs both discuss how AAPA accounts for throughput of the transmission line by adjusting the quality/resolution of the ESs. That is, when the throughput is low, the prior art transmits low quality ESs, and when throughput is high, the prior art transmits high-quality ESs. However, nowhere does the ES discuss adjusting and transmitting a scene description that accounts for the different quality ESs.

AAPA therefore fails to teach or suggest various features of independent claim 1. For similar reasons, independent claims 14, 27, 40, and 78 are also neither taught nor suggested by AAPA (although claims 1, 14, 27, 40, and 78 should be interpreted solely based upon the limitations set forth therein). Furthermore, at least for the reason disclosed above claims 30-35, and 43-46 also overcome AAPA because they depend on independent claims 1, 14, 27, and 40.

Accordingly, Applicant respectfully requests that the rejection of independent claim 1, 14, 27, 40, 78 and dependent claims 14, 30, 32-35, 43, and 45-46 under 35 U.S.C. § 102(e) be withdrawn.

Rejections under 35 U.S.C. § 103

Claims 1-6, 8-19, 21-32, 34-45, 47-52, 78-82, and 84-94 have been rejected under 35 U.S.C. § 103 as being obvious over U.S. Patent 6, 490,320 to Vetro et al. ("Vetro") in view of U.S. Patent No.6,700,893 to Radha et al. ("Radha").

Claims 2-6, 8-13, 15-19, 21-26, 31, 44, 47, 81, 82, and 84-94 have been cancelled. Applicant traverses this rejection as it pertains to the remaining claims.

Vetro discloses encoding compressed video to account for the capacity of a network. The system operates by accepting video content and recoding it in real-time to an appropriate format.

Radha discloses a mechanism for transmitting streaming video. The device takes into account transport delay issues and buffer constraints in encoding the outgoing stream. The mechanism operates by maintaining a communication between the video transmitter 110 and video receiver 130. The encoder receives a series of frames 201-203, which are encoded into a stream based on a series of constraints, dictated by the transmission rate and medium, and placed in the encoding buffer. The stream is then transmitted to the decoding buffer and decoded into frames 251-253. The goal on the process is to provide smooth playback of the original frames in the best possible resolution given the constraints of transmission.

Neither Vetro nor Radha teach or suggest that "*said transmitting apparatus comprises: an elementary scene (ES) processing means that transfers at least one ES, which conforms to at least one of a transmission line state and a request issued from said receiving apparatus, a scene description processing means that transfers and modifies a scene description to conform to the corresponding quality of the at least one ES by adjusting the properties assigned to the ES within scene description.*" As with the rejection over AAPA, the rejection fails to recognize the important distinction in the difference between the scene description and elementary streams (ESs) making up the scene. The scene description provides a description of the relationships between the various ESs, and is adjusted to account for the various quality of the transmitted ESs.

Similar to AAPA, both Vetro and Radha lack the ability to provide the optimal scene for the transmitted stream. While both references disclose modifying the video stream to account for the deficiencies in the transmission medium, both still use the same scene description to display the video stream. As such, when a poor-quality stream is transmitted, due to a poor transmission line condition, the poor-quality stream is still displayed at full size (as set forth in the one size fits all scene description) resulting in an obviously degraded video. As such, neither Vetro nor Radha are

capable of modifying the scene to account for the different resolutions or qualities of the transmitted video streams and therefore fail to teach or suggest "*a scene description processing means that transfers and modifies a scene description to conform to the corresponding quality of the at least one ES by adjusting the properties assigned to the ES within scene description.*"

Given that neither Vetro nor Radha teach or suggest modifying the actual scene description as separate from the data streams, there is no basis to assert that even a combination of these references would suggest modifying the scene description to account for the adjustment in the stream quality. Since even a combination of the relied upon references would still fail to yield the claimed invention, Applicant submits that a *prima facie* case of obviousness for claim 1 has not been presented.

For the reasons stated above claims 14, 27, 40, and 78 also overcome the combination of Vetro and Radha. Furthermore, at least for the reason disclosed above claims 28-30, 32, 34-39, 41-43, 45, and 48-52, overcome the combination of Vetro and Radha because they depend on independent claims 1, 14, 27, 40, and 78.

Accordingly, Applicant respectfully requests that the rejection of claim 1, 14, 27-32, 34-45, 47-52, and 78 under 35 U.S.C. § 103(a) be withdrawn.

CONCLUSION

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. SON-2196 from which the undersigned is authorized to draw.

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Respectfully submitted,

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